

Digital Video Recorder

User's Guide

4CH DVR

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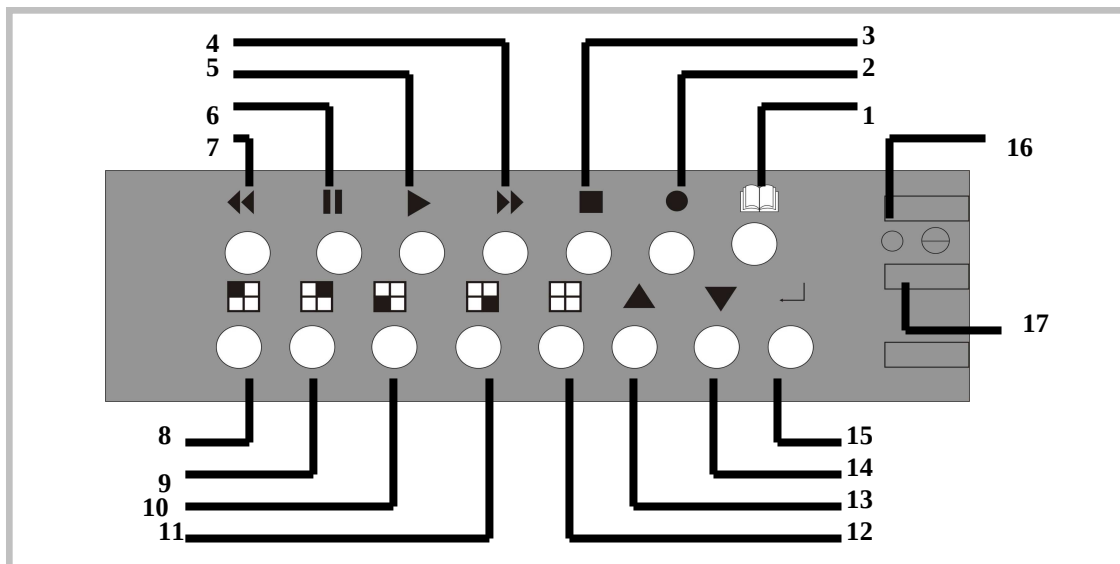
Introduction to Digital Video Recorder (DVR)

The digital video recorder (DVR) is for recording/retrieving video streams from up to 4 channels at the same time. It adopts a digital image compression technology to compress the input channel video streams, and uses HDD to record the compressed video stream.

The following operation guide explains how to operate/manage the DVR, and the following installation guide explains how to install DVR at your home or HDD into the DVR.

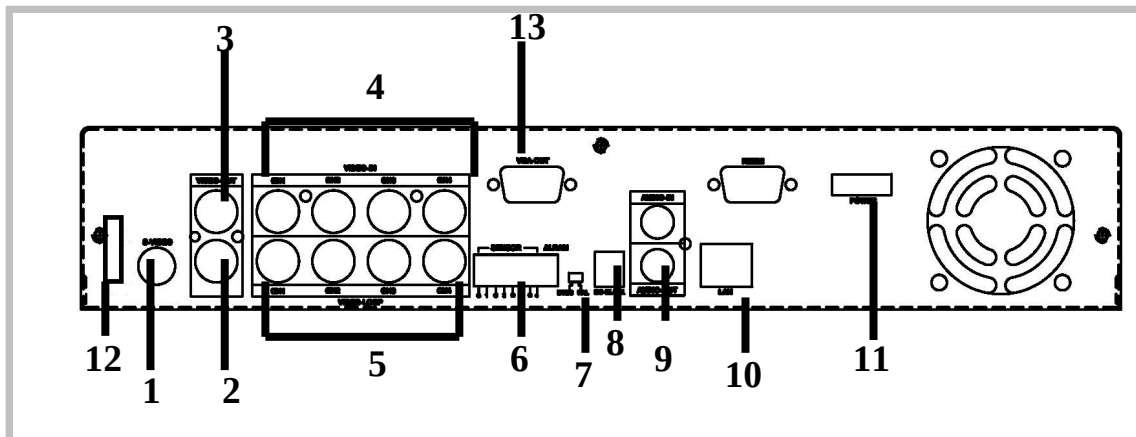
Hope you enjoy it, use it to protect your home, and eventually make your home as SAFE HOME.

Front Panel



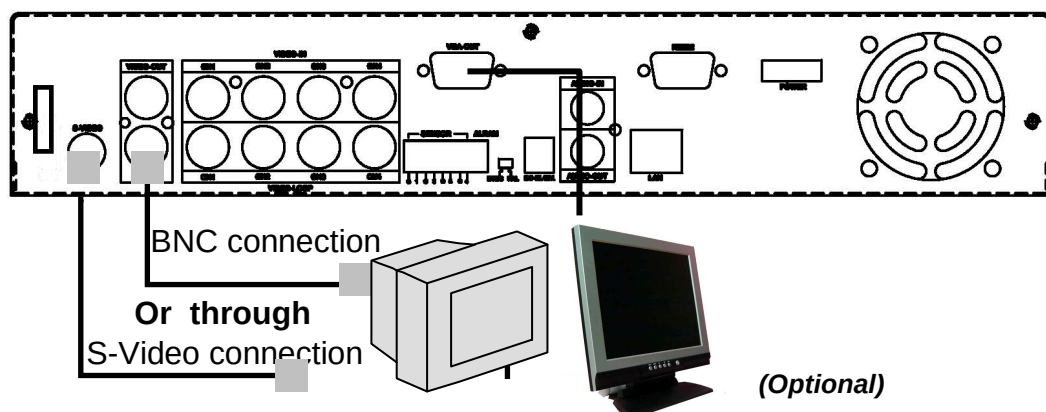
1. (Menu) button: press to display Operation menu option
2. (Recording button): press to start recording.
3. (Stop recording/playback button): press stop recording/playback (the authorized password is requested upon stopping record; the default password is 111111)
4. (Fast forward button): press to play the recorded stream faster.
5. (Playback button): press to start playback
6. (Pause button): press to pause the video playback
7. Reverse: press to playback backward
8. Channel 1 button: press to select channel 1
9. Channel 2 button: press to select channel 2
10. Channel 3 button: press to select channel 3
11. Channel 4 button: press to select channel 4
12. All channels button: press to select all channels display
- 13,14. up down buttons: press to change menu field
15. (Select) button: press to change the setting value or enter into a sub menu
16. Green LED light on :Power ON
17. Red LED light on: HDD recording

Rear Panel



1. S Video
2. Video output
3. Monitor : Second Video output
4. Video input
5. Video loop-through
6. Sensor input/alarm output: 4 sensor inputs and one alarm output
7. NTSC/PAL switch
8. DC-in (12Voltage)
9. Audio-in/out (optional function)
10. LAN(RJ45) (optional function)
11. Power switch
12. PC Link : USB device (2.0) (optional function) or USB Host
13. VGA output (optional function)

DVR Installation

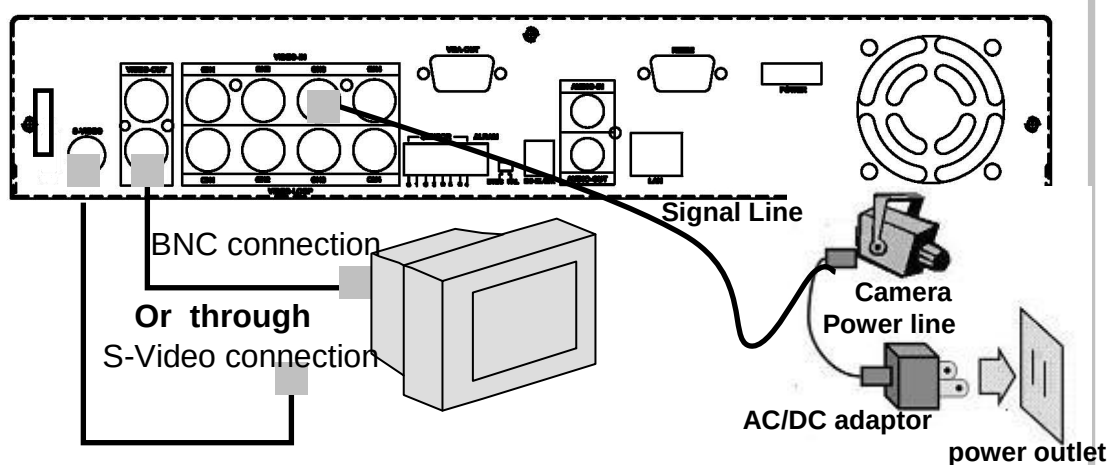


1. Video output connection (TV or monitor, LCD monitor)

Please connect TV(monitor) or LCD monitor *(optional)* to the unit over the Video output connector.

The unit provides 1 x S-Video input, 2 x BNC connector and 1 x VGA output. *(optional)*

The above Figure shows the video signal line connection.



2. Video input connection (Camera)

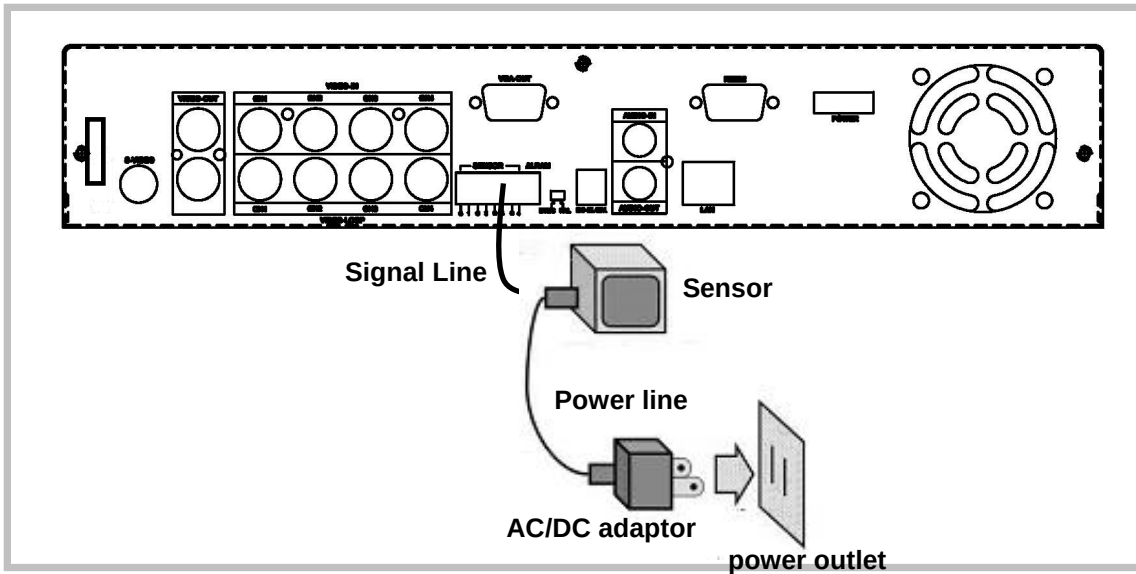
Please connect Camera to the unit over the Video input connector.

The unit provides 4 x BNC connectors. The camera installation

Procedures are as following:

- i. Connect the video signal line: connect the video signal line to the unit
- ii. Connect camera power line: Connect camera's adaptor to camera, and plug in the adaptor. The complete connection with a camera will be shown as figure above:

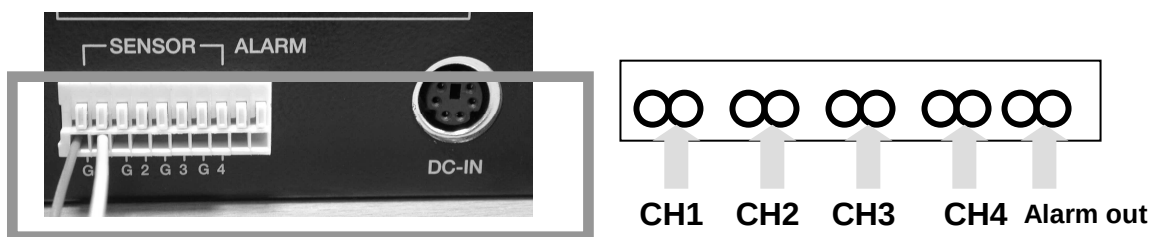
DVR Installation



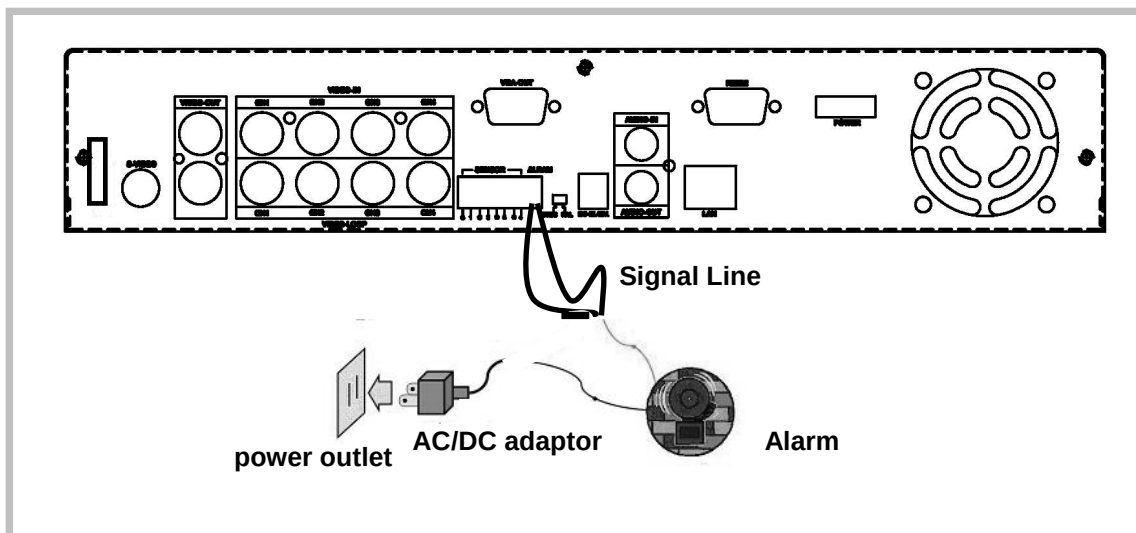
3.Sensor Installation

The unit provides 4 sensor input for 4 channels. The sensor Installation procedures are as follows. There are two simple steps For the installation of the sensors.

- i. **Connect the sensor signal line:** Connect the video signal line to the unit. The Sensor signal terminal is at the unit's back panel
- ii. **Connect the sensor adaptor jack into the sensor, and plug in the adaptor.**



DVR Installation

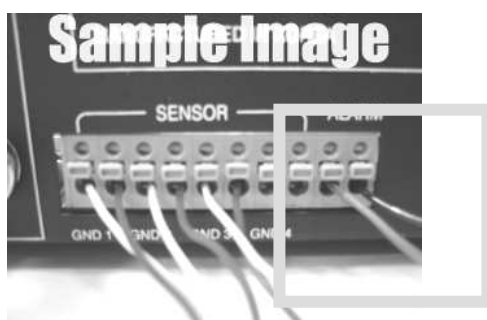


4. Alarm installation

The unit provides 1 internal switch for sounding alarm when the sensor is Activated due to the unwanted entrance of anonymous visitor. The switch is open at normal state, but, when the alarm is activated, the switch is closed so that the alarm gets the power. The circuitry is shown as above figure.

There are two simple steps for the installation of the alarm

- i. Prepare the power supply: the alarm needs a power supply, the power supply comes with the alarm
- ii. Connect the alarm power line: the alarm power line is connected to the alarm switch terminal.



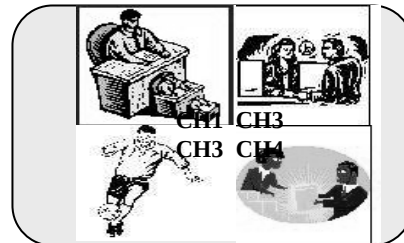
Power up the unit

After the unit is properly installed, the unit is ready to record and play. Then apply power and switch on.

After the unit is powered on, the unit will check HDD for several seconds,

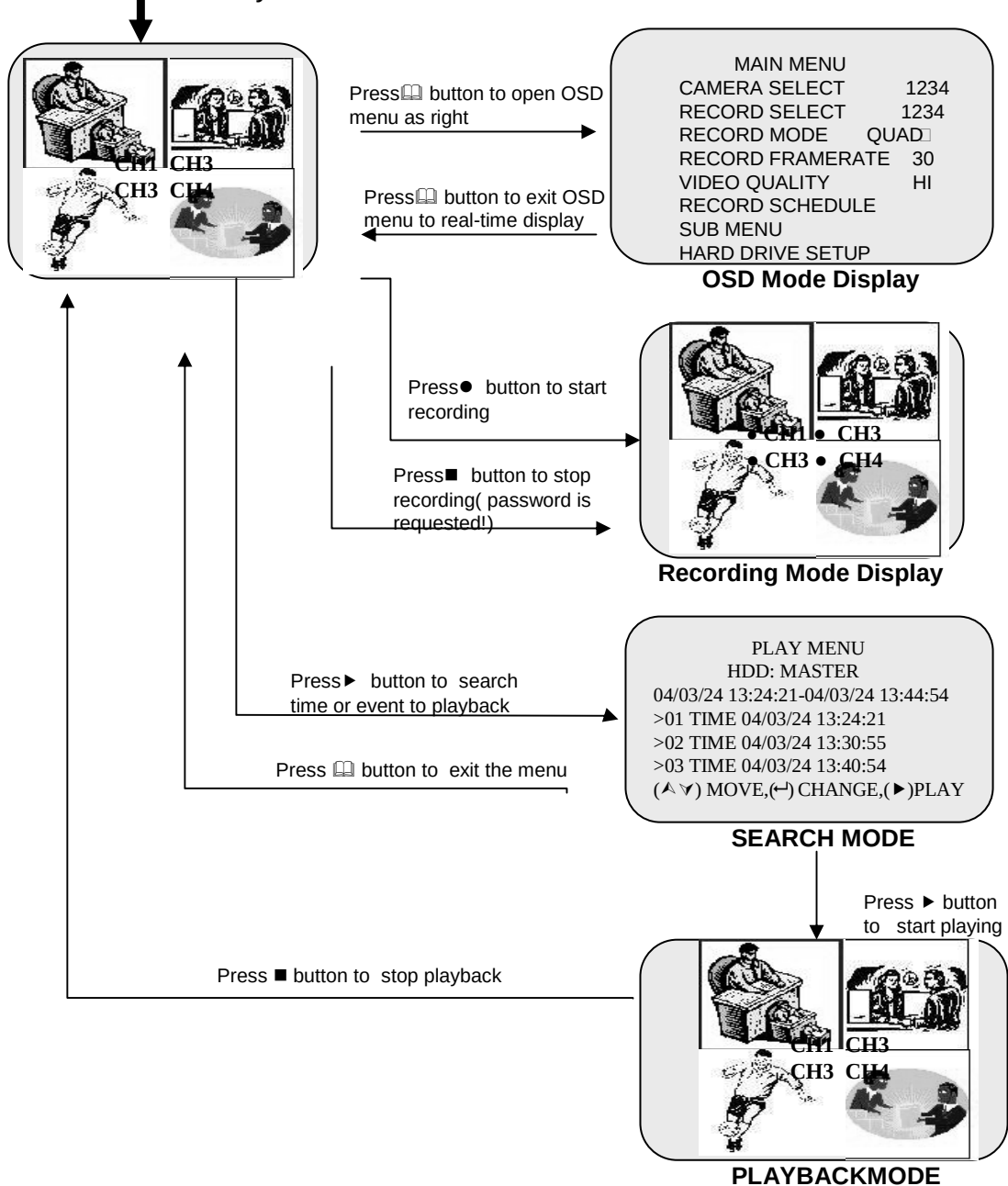
HDD CHECKING -----OK
Master [xxxxxxx]

The unit will enter into real-time display mode shown as the right figure:



On-Screen Display

1. Power on the system



Operation guide

MAIN MENU

Press  to display menu option shown as right figure.

MAIN MENU
➤ CAMERA SELECT 1234
RECORD SELECT 1234
RECORD MODE EACH 
RECORD FRAMERATE 25
VIDEO QUALITY HI
RECORD SCHEDULE
SUB MENU
HARD DRIVE SETUP
SENSOR SETUP
Move (↑↓)/Select (←→)
Scene(<<)/Exit ()

Operation Buttons

 --- press to display menu option.
▲▼--- press to change menu field or change the unit's configuration values.
← --- press to select menu item or confirm the selection.

- Please stop recording or playback before you enter into OSD menu.
- You will be requested to enter password, while stopping recording.
The default password is "555555"; please refer to the page for the definition of the keys

CAMERA SELECT

MAIN MENU
➤ CAMERA SELECT 1234
RECORD SELECT 1234
RECORD MODE EACH 
RECORD FRAMERATE 25
VIDEO QUALITY HI
RECORD SCHEDULE
SUB MENU
HARD DRIVE SETUP
SENSOR SETUP
Move (↑↓)/Select (←→)
Scene(<<)/Exit ()

The unit provides 4 camera inputs. You can use channel buttons on the front panel to select specified channel for real-time display.
Notice:The default setting for this option is all of four cameras "ON"

You can use "←→" button or channel buttons for different combinations for channel display.

Example:

1. When you choose (----), all cameras are off
2. When you choose (1234), all cameras are displayed.
3. When you choose (---4), only the fourth channel is displayed.

NOTICE

VIDEO LOSS !

"VIDEO LOSS" signal will be displayed, and the built-in alarm buzzer will be triggered to sound, while no video connection or connection failure.

NOTICE

Channel Display Control

In each mode(☐) mode, you can use the following buttons to display Full-screen format of each channel.



Channel 1 button: Full screen display of channel 1



Channel 2 button: Full screen display of channel 2



Channel 3 button: Full screen display of channel 3



Channel 4 button: Full screen display of channel 4

RECORD SELECT

```

MAIN MENU
CAMERA SELECT    1234
➤ RECORD SELECT  1234
RECORD MODE      EACH☐
RECORD FRAMERATE 25
VIDEO QUALITY    HI
RECORD SCHEDULE
SUB MENU
HARD DRIVE SETUP
SENSOR SETUP
Move (↑↓)/Select (←)
Scene(<<)/Exit (⏏)
    
```

Selecting channel on this menu option is same as “CAMERA SELECT” options.

Only selected camera will record real-time events during recording period

Notice: The default setting for this option is all of four cameras “ON”

RECORD MODE

```

MAIN MENU
CAMERA SELECT    1234
➤ RECORD SELECT  1234
RECORD MODE      EACH☐
RECORD FRAMERATE 25
VIDEO QUALITY    HI
RECORD SCHEDULE
SUB MENU
HARD DRIVE SETUP
SENSOR SETUP
Move (↑↓)/Select (←)
Scene(<<)/Exit (⏏)
    
```

There are two kinds of recording mode : ☐ (each mode; full screen mode)& ☐ (quad screen mode). when you set to ☐ mode, you can view the full-screen display of one specified channel.

When you set to ☐ mode, quad-screen will be displayed.

Please use ▲▼ buttons of front panel to select mode and then enter ← to confirm the selection

Notice: The default setting for this option is EACH mode

RECORD FRAMRATE

MAIN MENU
CAMERA SELECT 1234
➤ RECORD SELECT 1234
RECORD MODE EACH□
RECORD FRAMRATE 25
VIDEO QUALITY HI
RECORD SCHEDULE
SUB MENU
HARD DRIVE SETUP
SENSOR SETUP
Move (↑↓)/Select (↵)
Scene(<<)/Exit (⏏)

There are 9 different frame rate settings for operation: (NTSC system:30fps,15fps,10fps,7fps,5fps,4fps,3fps,2fps,1fps;

PAL:25fps,12fps,8fps,6fps,4fps,3fps,2fps,1fps)

Notice:The default setting for this option is 30pfs under NTSC, 25fps under 25fps

NOTICE

RECORDING FRAME RATE

The higher the record frame rate is, the more natural look will be displayed on the screen on playback mode.

But the lower the record frame rate is, the more you can save the space on HDD.

VIDEO QUALITY

MAIN MENU
CAMERA SELECT 1234
➤ RECORD SELECT 1234
RECORD MODE EACH□
RECORD FRAMRATE 25
VIDEO QUALITY HI
RECORD SCHEDULE
SUB MENU
HARD DRIVE SETUP
SENSOR SETUP
Move (↑↓)/Select (↵)
Scene(<<)/Exit (⏏)

There are 3 different video quality settings for operation: Normal, Low, High

Please use ▲▼ buttons of front panel to select mode and then enter ↵ to confirm the selection

NOTICE

DIFFERENT VIDEO QUALITY SETTINGS ON HDD CAPACITY

The higher the video quality is, the clearer images the unit plays.

But the lower the video quality is, the more you can save the space on HDD.

Operation guide

RECORD SCHEDULE

```

MAIN MENU
CAMERA SELECT      1234
> RECORD SELECT    1234
RECORD MODE        EACH
RECORD FRAMERATE   25
VIDEO QUALITY      HI
RECORD SCHEDULE
SUB MENU
HARD DRIVE SETUP
SENSOR SETUP
Move (↑↓)/Select (←)
Scene(<<)/Exit (⏏)
  
```

Enter into this option to change a recording schedule during a day (24-hour period) .

```

RECORD SCHEDULE
+ T T T S S T T T T T T T T +
  
```

0 3 6 9 12 15 18 21 24

T:Time S:Sensor -:None

Move (↑↓)/Select (←)
Scene(<<)/Exit (⏏)

Numbers above indicate the time duration of 24 hours.

(T) Letter indicates recording.

(S) Letter indicates sensor recording. It means the unit starts recording as the attached sensors being triggered during this period.

(--) Recording is off during this duration.

SETTING EXAMPLE:

0:00 ~ 7:00 SENSOR RECORDING

7:00 ~11:00 RECORDING DISABLED

11:00 ~18:00 RECORDING

18:00 ~24:00 SENSOR RECORDING

```

+ S S S S S S - - - - T T T T T T T S S S S S S +
  :           :           :           :           :
  0           6          11          18          24
  
```

Operation guide

SUB MENU

MAIN MENU
 CAMERA SELECT 1234
 ➤ RECORD SELECT 1234
 RECORD MODE EACH 
 RECORD FRAMERATE 25
 VIDEO QUALITY HI
 RECORD SCHEDULE
 SUB MENU
 HARD DRIVE SETUP
 SENSOR SETUP
 Move (↑↓)/Select (←))
 Scene(<<)/Exit ()

Enter into this option to change password, time /date setting, date format and enable the connection between the unit and PC over USB interface.

SUB MENU
 ➤ PASSWORD CHANGE
 TIME SETUP
 COLOR ADJUSTMENT
 DATE VIEW MODE yyyy/mm/dd
 SEQUENTIAL TIME [2]
 AUTO RECORD [on]
 VIDEO LOSS BEEP [short beep]

Move (↑↓)/Select (←))
 Scene(<<)/Exit ()

PASSWORD CHANGE .

You enter into "PASSWORD CHANGE", a password change input menu replaces the "SUB MENU" (The default password is 111111)

When the new password is accepted, the board will flash the following screen message:

PASSWORD changed!!!

The message will blink 3 times. Then the display goes back to SUB MENU.

NOTICE

FRONT PANEL BUTTONS DEFINITION

	means "1"		means "5"		means "b"
	means "2"		means "6"		means "C"
	means "3"		means "7"		means "D"
	means "4"		means "8"		means "E"
			means "9"		means "F"
			means "0"		

Operation guide

TIME SET

TIME SETUP
2004/03/21 03:23:21

Move (↑↓)/Select (←→)
Scene(<<)/Exit (⏏)

Enter into this option to change date and hour.

COLOR ADJUSTMENT

COLOR ADJUSTMENT

	brightness	contrast
Channel-1	[6]	[4]
Channel-2	[6]	[4]
Channel-3	[6]	[4]
Channel-4	[6]	[4]

BRIGHTNESS (<<)/Contrast(>>)/SELECT (←→)
Move (↑↓) /Exit (⏏)

Use this menu to adjust each camera's brightness and contrast

Notice:The default setting for this option is 6 under brightness; 4 under contrast for all of four cameras

AUDIO RECORD

AUDIO RECORD [ON]

Use this menu to either turn on audio recording or off

➤ **"AUDIO RECORD" is optional function which is only provided with LAN model.**

AUDIO MUTE

AUDIO MUTE [ON]

Use this menu to either turn on sounding or off

Operation guide

DATE VIEW MODE

SUB MENU
PASSWORD CHANGE
TIME SETUP
COLOR ADJUSTMENT
➤ DATE VIEW MODE yyyy/mm/dd
SEQUENTIAL TIME [2]
AUTO RECORD [on]
VIDEO LOSS BEEP [short beep]

Move (↑↓)/Select (←))
Scene(<<)/Exit (⏏)

The unit provides yyyy/mm/dd or dd/mm/yyyy variant which depends on the regional preference.

Notice: The default setting for this option is yyyy/mm/dd

SEQUENTIAL TIME

SUB MENU
PASSWORD CHANGE
TIME SETUP
COLOR ADJUSTMENT
DATE VIEW MODE yyyy/mm/dd
➤ SEQUENTIAL TIME [2]
AUTO RECORD [on]
VIDEO LOSS BEEP [short beep]

Move (↑↓)/Select (←))
Scene(<<)/Exit (⏏)

Use this menu to specify each channel display dwell time.

Dwell time settings determine from 1 sec to 9 sec between displays for 4 channels.

Note: Please press “←” to confirm the setting. Or press “⏏” button to disable the setting.

Notice: The default setting for this option is 2 seconds

AUTO RECORD

SUB MENU
PASSWORD CHANGE
TIME SETUP
COLOR ADJUSTMENT
DATE VIEW MODE yyyy/mm/dd
SEQUENTIAL TIME [2]
➤ AUTO RECORD [on]
VIDEO LOSS BEEP [short beep]

Move (↑↓)/Select (←))
Scene(<<)/Exit (⏏)

Use this menu to run auto recording

Notice: The default setting for this option is “on”

Operation guide

VIDEO LOSS BEEP

SUB MENU
PASSWORD CHANGE
TIME SETUP
COLOR ADJUSTMENT
DATE VIEW MODE yyyy/mm/dd
SEQUENTIAL TIME [2]
AUTO RECORD [on]
➤VIDEO LOSS BEEP [short beep]

Move (↑↓)/Select (↵)
Scene(<<)/Exit (⏏)

Use this menu to either select buzzer's ton(long tone or short tone) or turn off the sound.

Notice:The default setting for this option is short beep

HDD SETUP

HARD DRIVE SETUP
OVERWRITE ENABLED [YES]
MASTER HDD FORMAT
HDD SIZE 82398MB
HDD USED 0MB 0%

OVERWRITE ENABLED:

If you choose "YES", the unit will continue recording and overwrite the recorded data when HDD's space is full

If you choose "NO", the unit will stop recording while HDD's space is full

Notice: the default setting is "yes"

MASTER HDD USED:

It indicates how percentage of HDD's capacity has been occupied.

MASTER HDD FORMAT:

It erases all of the recorded data in Master HDD

The authorized password is requested before formatting, after the unit formatted, the following information will appear on the screen "HARD DISK FORMATTED" .

Operation guide

SENSOR SETUP

SENSOR SETUP
SENSOR RECORD TIME 10
ALARM OUT TIME OFF
H/W DETECTOR SETUP
S/W DETECTOR SETUP

Move (↑↓)/Select (↵)
Scene(<<)/Exit (⏏)

SENSOR RECORD TIME:

Recording duration once sensor
Being triggered; the selection of the
duration is 5,10,15,20,25,30 secs
Notice: the default sensor recording time
is 10secs

ALARM OUT TIME:

It controls how long (in second)
the alarm sounds after being triggered.
The settings are
Nonstop/off/5,10,15,20,25,30secs
Notice:the default setting is "off"

H/W SENSOR SETUP
CHANNEL-1 TYPE: NOT INSTALLED
CHANNEL-2 TYPE: NOT INSTALLED
CHANNEL-3 TYPE:NOT INSTALLED
CHANNEL-4 TYPE:NOT INSTALLED

Move (↑↓)/Select (↵)
Scene(<<)/Exit (⏏)

H/W SENSOR SETUP

The unit provides 3 different modes for
External sensor facilities

:

- 1.Not installed. 2. Normal open.
3. Normal close.

In normal open mode, the cable line
Connected between the sensor and
the unit is cut off by an intruder, the unit
starts recording.

In normal close mode, the cable line
connected between the sensor and the
Unit is cut off by an intruder , the unit
stops recording

Notice: the default setting is Not installed

S/W DETECTOR SETUP

CHANNEL-1 SENSITIVITY 5
CHANNEL-2 SENSITIVITY 5
CHANNEL-3 SENSITIVITY 5
CHANNEL-4 SENSITIVITY 5

1:MORE - 9:LESS
Move (↑↓)/Select (↵)
Scene(<<)/Exit (⏏)

MOTION SENSITIVE SETUP

Use this menu to adjust the sensitivity of each channel.

(0 stands for highest

Sensitivity, but 9 is for lowest sensitivity.) .

Notice: the default sensitivity level is 5

Operation guide

How to operate Motion detection recording

SENSOR SETUP
SENSOR RECORD TIME 10
ALARM OUT TIME OFF
H/W DETECTOR SETUP
S/W DETECTOR SETUP

Move (↑↓)/Select (↵)
Scene(<<)/Exit (⏏)

S/W DETECTOR SETUP
CHANNEL-1 SENSITIVITY 5
CHANNEL-2 SENSITIVITY 5
CHANNEL-3 SENSITIVITY 5
CHANNEL-4 SENSITIVITY 5

Move (↑↓)/Select (↵)
Scene(<<)/Exit (⏏)



SCHEDULE RECORD
+ T T T S S T T T T T T T T +
0 3 6 9 12 15 18 21 24

Move (↑↓)/Select (↵)
Scene(<<)/Exit (⏏)

Follow the steps as below to activate motion-detection recording.

1. Please set the period of Alarm out time
2. Please go to S/W DETECTOR SETUP under "SENSOR SETUP" menu as the left figure shown.
3. Specify the sensitivity of each channel.
4. After the selection, please be back to MAIN MENU and go to "SCHEDULE RECORD" to power on the alarm setting.

Operation guide

PLAYBACK

Please use the front panel buttons to operate various playback functions.

PLAY MENU
HDD DRIVE: MASTER
04/03/2006 13:24:21-04/03/2006 13:44:54
>01 TIME 04/03/24 13:24:21
>02 TIME 04/03/24 13:30:55
>03 TIME 04/03/24 13:40:54

Move (↑↓)/Play (>)/Exit Menu(⏏)
Scene(<<)/Select Mode (>>)/Next Page(↵)

Press “▶” button, then the playback time /events selection menu as the left figure appears on the screen.

You can either enter the specified time/date to playback or select the event to search the video

NOTICE

1. Please stop recording before playback.

2. Because the events selection is default setting, so you need to press “▶▶” button to switch to time selection.

CONTROL BUTTONS

1. ▶▶ (fast forward button):

Press this button to play the recorded stream faster.

The unit provides three levels of fast forward playback speed:

- ▶▶1: play one time faster (x1), press “▶▶” button
- ▶▶2: play two times faster (x2) than the normal play
- ▶▶3: play four times faster (x4) than the normal play
- ▶▶4: play thirty-two times faster (x32) than the normal play
- ▶▶5: play sixty-four times faster (x64) than the normal play

2. ◀◀ (reverse button):

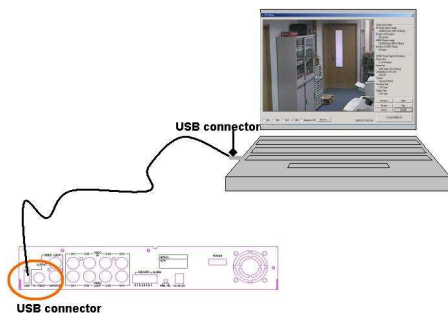
Press this button to play the recorded stream backward.

Remarks: the reverse playback speed depends on the fps, the number of the recorded channel, the video quality.

3. || (pause button) :

Press this button to pause the playback, or to advance one single frame upon pause mode.

Optional functions: Backup via USB port



The unit provides one USB port to simple backup over the connection with PC. Please mind the following steps to successful link.

Step 1. Connect the USB cable between the unit and PC

Step 2. Select "LINK TO PC" under submenu of the unit

Step 3. The "linking" will take around 30sec.

Step 4. The connection is ready for PC backup as "Linked" indicates on the screen.

Step 5. Open the PC viewer on PC, once PC identifies one unknown Hardware device

Step 6. Press "Menu" button back to "Main Menu"

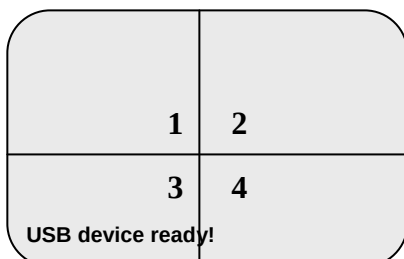
Warning: Please don't press "MENU" button during linking status, it would likely lead to unpredictable Error on your PC

Notice: 1. the unit employs USB 2.0, so it will take around 5 min to hand shake with USB 1.0.

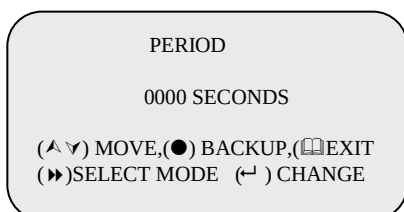
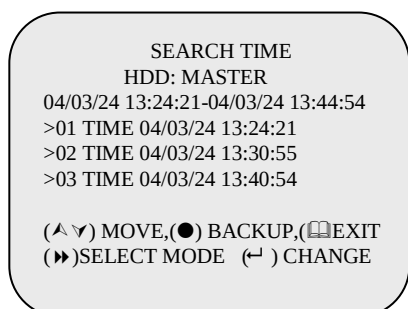
2. Before operating backup over USB, please install PC viewer software into your PC.

REMARKS: Please refer to Page.26 for the PC viewer installation and operation guide.

Optional functions: Backup on USB drive



Notice: Please stop recording before your backup!



The unit provides one USB Host port(optional) to simple backup data on Pen drive. Please follow the steps below:

Before doing backup to USB pen drive, please stop recording!

Step 1. Connect the USB pen drive to DVR, then "USB device ready " will be on the screen.

Step 2. press "▲" button to start backup function, and then follow all the instructions on the screen.

Notice: please press "↵" to format USB pen drive on request. After the format, please press "▲" button again to enter into "SEARCH TIME" menu.

Step3. Either select one period of time or specify the event you want to backup to USB pen drive.

Notice: press press "▶" button to switch between the time selection and event selection!

Step 4. After the selection, please enter "●" to confirm the backup.

Step 5. Please enter the time for the data you will backup to USB pen drive.

Step6. Press "●" button to confirm and start the backup!

Step7. After the backup, please install PC viewer software into your PC .

Optional functions: Network Setup

NETWORK SETUP
ACCEPT IP YES
MAC ADDRESS 03:01:01:01:25:46
IP ADDRESS 192.168.000.090
SUBNET MASK 255,255,255,000
GATEWAY 192.168.000.001
DVR ID ON LAN A PLUS
DHCP [OFF]

PRESS (▲▼), THEN (←→)
PRESS (□) TO EXIT

Notice:

1. PC Minimum requirements
of Networking :

CPU: 1 GHZ or above

System Memory: 256MB

or above

VGA memory: 32MB

OS: Window2000/XP

2. Please assign 14337,
14338 to the Port to install
DVR in a LAN with a static IP
address under a router (with
firewall) for sharing with
other equipments like PC.

- 1) The first option "enabled network client", please make sure is set to YES
- 2) MAC setting will not need to be altered.
- 3) *IP address (a static IP address) will need to be set to the DVR IP address you planning to allocate to, while you connect to Internet.
- 4) Subnet mask will need to be obtained from the routing device.
- 5) #Gateway IP address (IP address A) will need to be obtained from the routing device.

Please check with your M.I.S staff or administrator to enter the setting of MAC ADDRESS, IP ADDRESS, SUBNET MASK and GATEWAY Or please refer the left figure as a example for your reference

- 6) DVR ID on LAN : use "←" button to specify the DVR's identification. 26 alphabets will appear in sequential order.
- 7) DHCP [ON] : press "←" to confirm the installation as [ON]. (the default setting : OFF), and re-power on the DVR. Then the DVR will automatically get dynamic IP.

After configuring Networking settings, you
Can start to remote monitor via

Regulatory

FCC Certification

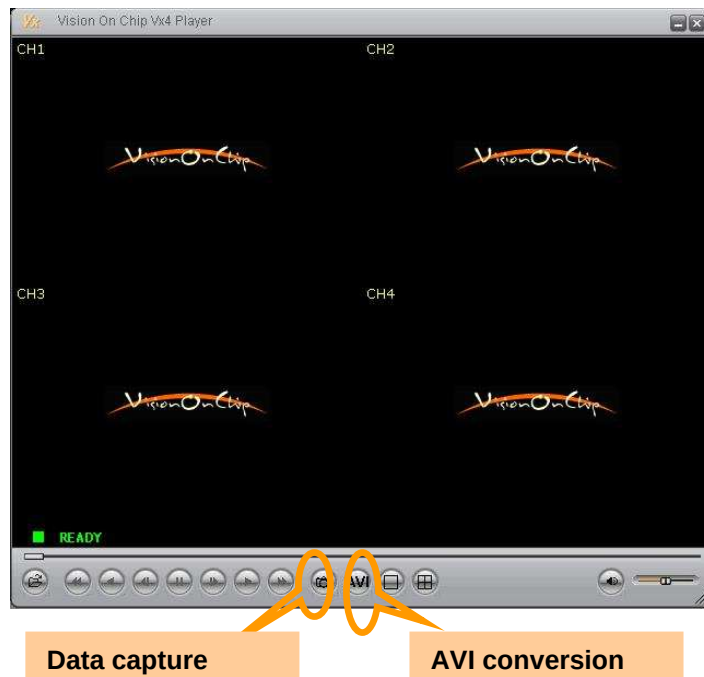
This equipment has been tested and found to comply with the limits for a class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at the own expense.

CE Mark

This product is marked with the CE symbol and indicates compliance with all applicable directives.

Appendix II: PC Viewer (HOST backup)application

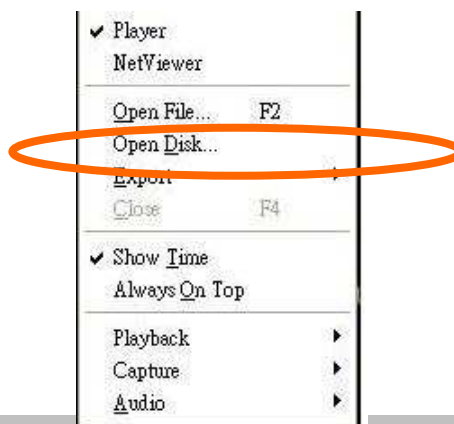
Note: Before installing PC viewer into your PC, please make sure DirectX9.0 or above, and the updated version of Service pack!!!



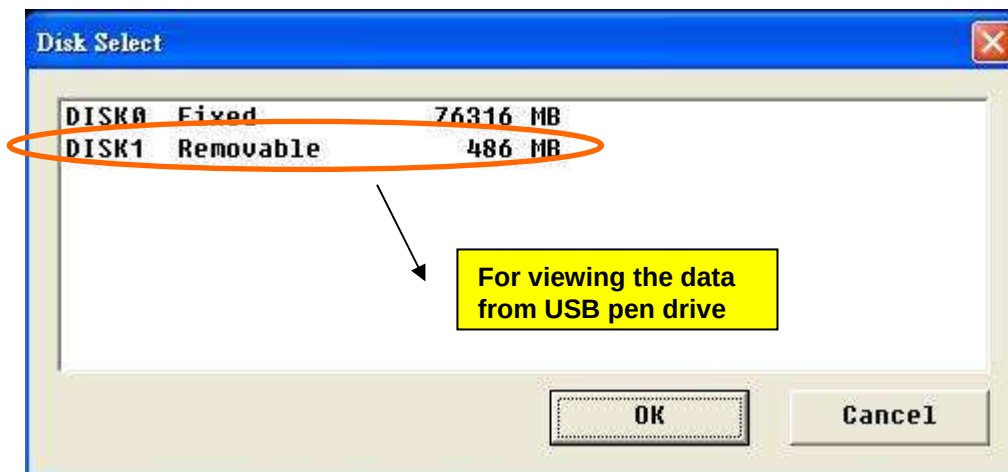
This PC viewer is applied for searching a period of data from Hard DISK or for the data of USB pen drive

Please follow the steps below to complete the installation of pc viewer:

1. **Please install USB pen drive into your pc**
2. **Please install PC viewer software into your PC (This software currently supports Windows2000 and Windows XP!) and enter into the software, then you will see a dialog box as above(figure 1) appear on the screen.**
3. **Please right click on the mouse to enter " Open disk " to either search the data from the Hard Disk or from the USB pen drive**



Appendix II: PC Viewer application



4. After selecting "Open file", the above dialog box will pop up
 - a. please enter into Disk1 for viewing the data of USB pen drive
 - b. please enter into Disk0 for searching data from Hard disk

Appendix IV: PC Client Application.

This dedicated remote PC client software allows you from a remote location to view live and recorded video over Internet. Also, you can capture, convert the video from the unit into AVI file or JPEG file, or play the stored video later on. Please follow the instructions below to use PC client.

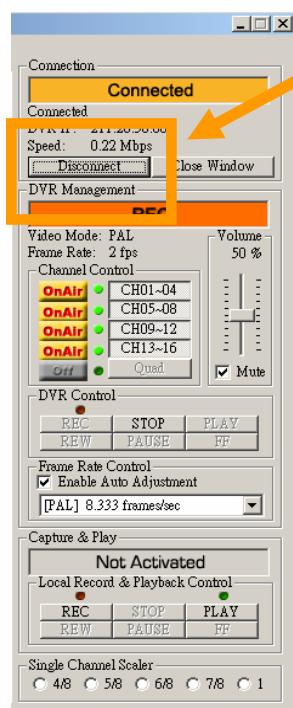
After you install PC client software into your PC, the Main window will appear on screen:



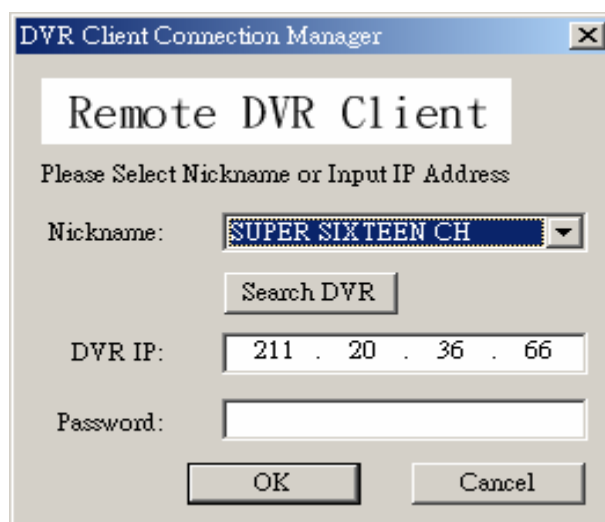
Main Window of PC client software

Appendix IV: PC Client Application.

1. How to connect to the DVR
click on “Connect” option on Main window



Click on “Connect “ to enter into
“DVR Client connection manager”
As the following dialog window:



1. **DVR IP:** The DVR IP address is the IP address of the remote DVR.
2. **Password :** The password is same password used for formatting the DVR's Hard Drive. The default value is 111111
3. **Nickname:** If you have configured DHCP settings in DVR, you can connect to DVR by click on “Search DVR”. There will be a list of DVR in Nickname list box. Select one you want to connect with from the list. click on “OK” to create connection.

Appendix IV: PC Client Application.

2. Connection Status:

When successfully connected, you would see” Connected” sign. This window also displays DVR IP address and shows changes of connection speed.

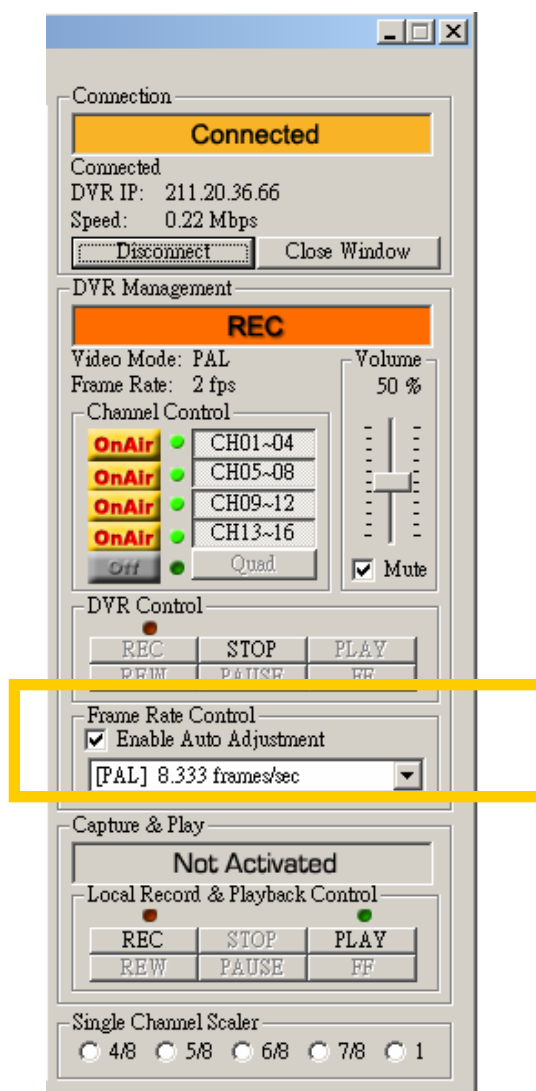


- To disconnect, simply click “ Disconnect “
- To close the application, click “ Close Window” button



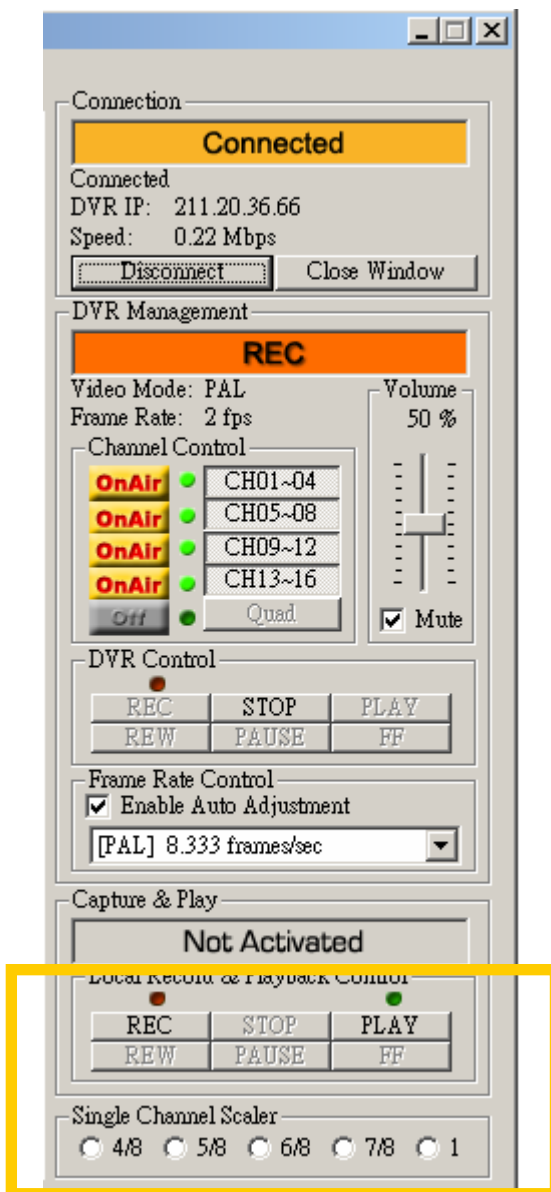
3. DVR control

The panel shown as the following figure operates exactly as the remote DVR operational button allow you to control remote DVR to live view, record and playback as well.



Appendix IV: PC Client Application.

4. Capture & Playback on you PC



4-1 Capture video data

When you click "REC" button, it will start to record the incoming video on your PC hard disk. The DVR client creates "steam_files" folder where the execution file is located. When the client is recording, the Capture & Play status indicator would show the current status, REC.

4-2 Playback

After recording is finished, click "Play" button to play the recorded video stream. Then you will see a stream file list of the video stream files previously captured.

5. DVR management

The image shows a 'Remote DVR Control Panel' window with the following sections and settings:

- DVR Basic Information**
 - DVR Record Mode: EACH
 - Hard Disk Information: 1 HDD, 75 GBytes (with a 'Detailed HDD Info.' button)
 - Video Quality: High
 - Record Frame Rate: 30 frames/sec
 - Alarm On Duration: Off
 - Alarm Record Duration: 5 sec
 - Audio Recording: Enable
 - DVR Speaker: Enable
- Channels**

	CH1	CH2	CH3	CH4
Input Channels:	ON	ON	ON	ON
Record Channels:	ON	ON	ON	ON
- DVR Time**

2004 / 05 / 24
12 PM : 33 : 42
- Record Schedule**

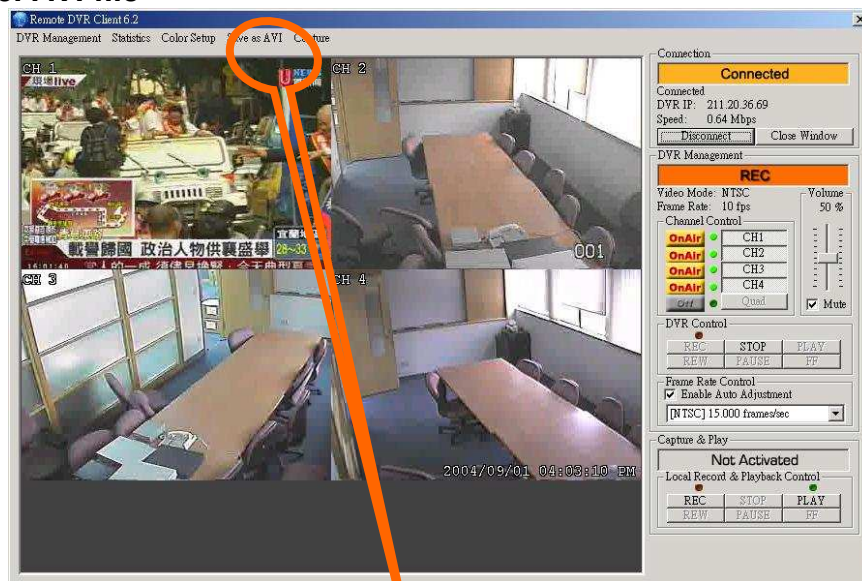
12 AM	1 AM	2 AM	3 AM	4 AM	5 AM
ON	ON	ON	ON	ON	ON
6 AM	7 AM	8 AM	9 AM	10 AM	11 AM
ON	ON	ON	ON	ON	ON
12 PM	1 PM	2 PM	3 PM	4 PM	5 PM
ON	ON	ON	ON	ON	ON
6 PM	7 PM	8 PM	9 PM	10 PM	11 PM
ON	ON	ON	ON	ON	ON

Buttons: Update Setting, Close Window

This option enables you to adjust remote DVR's operation setting : Video Quality, Record Frame rate, Alarm On Duration, Alarm record Duration, Input Channels, Record Channels, DVR system time setting and Record Schedule. All of settings operate as you do with DVR itself. Notice: For the record mode change can be made only on DVR, so the display shows the current DVR record mode on connection.

Appendix IV: PC Client Application.

6. AVI file

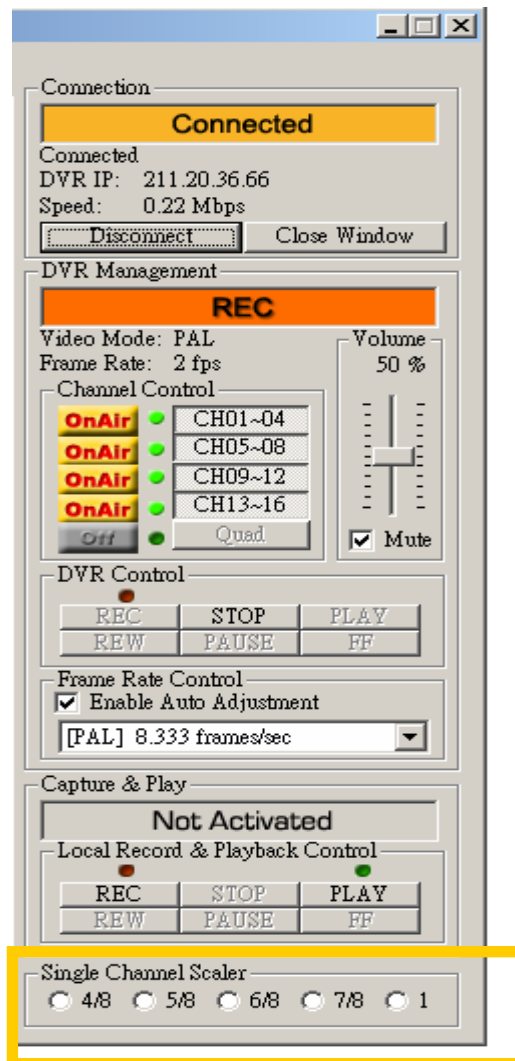


Click on this button to convert the real-time video data or the recorded data into AVI file

Click on “ AVI save as” button to convert the desirable data into AVI file, then you will see the following dialog box for saving the AVI file. After specifying the file name and confirmation, please click on “ Backup to AVI” to start the conversion.



8. Single Channel Scaler



Single channel scaler is effective only in single channel mode. If you are viewing single channel, you can scale it up/down by selecting these options.

Appendix IV

The following is the recording time vs video quality settings table for your reference

Frame/Second		1	2	3	4	5	7	10	15	30
MODE	HI	897H	448H	299H	223H	179H	104H	89H	59H	29H
	NORMAL	1092H	546H	364H	273H	218H	152H	109H	72H	36H
	LO	1365H	682H	455H	340H	273H	191H	136H	91H	45H
MODE	HI	690H	345H	230H	172H	138H	96H	69H	46H	23H
	NORMAL	840H	420H	280H	210H	168H	117H	84H	56H	28H
	LO	1050H	525H	350H	262H	210H	147H	105H	70H	35H

NTSC format

Frame/Second		1	2	3	4	6	8	12	25
MODE	HI	448H	299H	223H	179H	104H	89H	59H	29H
	NORMAL	546H	364H	273H	218H	152H	109H	72H	36H
	LO	682H	455H	340H	273H	191H	136H	91H	45H
MODE	HI	345H	230H	172H	138H	96H	69H	46H	23H
	NORMAL	420H	280H	210H	168H	117H	84H	56H	28H
	LO	525H	350H	262H	210H	147H	105H	70H	35H

PAL format

PS: The recording hours on 80GB HDD